FACTORS THAT INFLUENCE THE WIDTH OF BID ASK SPREAD : STUDY IN KOMPAS 100 INDEX IN INDONESIA STOCK EXCHANGE

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ABSTRACT

This research is conducted to provide evidence on the influence of earning per share, leverage, trading volume activities and stock return variance toward bid ask spread. The object researched is company that listed in Kompas 100 index in Indonesia Stock Exchange. In total, there were 54 company that fulfill the requirements set by the researcher based on purposive sampling method. Based on the findings of the panel data analysis during the period 2015-2016, earning per share and trading volume activities exhibits statistically negative influence toward bid ask spread. Leverage and stock return variance exhibit has no influence toward bid ask spread.

Keywords : Bid Ask Spread, Earning Per Share, Leverage, Trading Volume Activities, Stock Return Variance

1. Background

The capital market is a meeting place between those who have surplus funds with those who are in need of funds by way of trade in securities, it is financial markets for the buying and selling of long-term debt or equity securities. Capital market has a big role for the country's economy as the capital markets play two roles at the same time, they are economic function and financial functions. Economic function as facilitates those who have excess funds (investors) and those who need the funds (issuer) and the capital market is said to have a financial function, as it gives the possibility and the opportunity to earn returns for the owners of the funds, according to the characteristics of the selected investments. There are many variations of investments available with the hope of making a profit in the future. One of them is common stock. Common Stock is one of securities that much offered by the company and attract investors. This is reflected in the development volume of stock transactions carried out and the number of companies selling shares to investors, total 537 companies until 2016 had registered.

Year	Number of Shares (in Billion)	Total Companies Listed
2012	1053.76	462
2013	1342.6	483
2014	1327.02	506
2015	1446.31	521
2016	1925.42	537

Source :www.ojk.go.id, 2016

Investors have the freedom in choosing the type of stocks of the company that go public, buying the number of stock and the holding of stocks. However, investors have consideration in accurately valuing stocks in order to obtain maximum returns and minimize risks to their investment activities. In addition to these two main criteria, another characteristic to be observed by investors is liquidity. Without liquidity, the capital market becomes unattractive and loses its role as a means of investment as well as a source of financing. According to Ross (2011), liquidity is the speed and ease of an asset converted into cash. Amihud and Mendelson (1986) use bid ask spreads in measuring liquidity. Bid price

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(purchase price) is the highest purchase price leading investors willing to buy a stock. Ask price (the sale price) is the lowest selling price which cause investors are willing to sell a stock. The difference between the selling price and the purchase price is called the bid-ask spread. Bollen, Smith and Whaley (2004) stated dealer determine the spread sufficient to cover the cost of holding inventory, order processing cost and adverse information cost. Knowledge about bid ask spread is very necessary for investors because this is seen as one of the cost components in stock trading, but generally investors pay less attention to the behavior bid ask spread, whereas the change in bid ask spread of stock gives a lot of information for investor about return, also the stock risk. Investors can take the decision to buy stocks or not, by looking at the spreads.

Related to an optimal bid ask spread, then this research will examined factors that are predicted may influence bid ask spread, they are earning per share, leverage, trading volume activities and stock return variance. Investors expect earnings per share from companies that issuing the stock. Weygandt et al. (2013) stated earnings per share (EPS) is a measure of the net income earned on each sheet of common stock. Calculated by dividing net income available to common shareholders by the weighted average number of ordinary shares outstanding during the year. High earning indicates that the shares of the company has good prospects, this encourages investor to make bigger investment so these shares are actively traded. If a stock is actively traded, then the dealer will not keep these shares for long time. This will result in reduced cost of ownership of shares, processing fees orders and cost information which in turn decreases the level of bid ask spread. In Sunarko's research (2016) stated earnings per share have a significant negative effect on bid ask spread, but unlike research conducted by Fitriyah (2012) stated earnings per share does not affect bid ask spread.

Leverage is the proportion of debt usage made by company for investment financing. If a company does not use leverage at all it can be said that the company uses 100% of its own capital. Corporate financial decisions is taken by management based on company's financial leverage. Increasing of financial leverage can give positive and negative influence on investors depending on economic conditions (Odit and Chittoo, 2008). The higher of debt ratio will create higher of the level of risk, so investors tend to avoid to buy company share which has higher debt ratio. The condition causes the dealer have to hold the shares for long time. It can make the cost of share ownership will be higher, so that bid-ask spread also will be higher. In the research of Nabiev (2014), the result shows that leverage has a positive influence toward the bid-ask spread, but unlike Royani's (2017) study, the leverage does not affect the bid ask spread.

Trading volume activities used to see the capital market reaction against existing information through motion parameters of activity trading volume in the stock market. Chan et al (2001) stated the volume of trade is defined as the number of shares traded on the day certain trades. A large trading volume indicates that stock is actively traded, which indicates the shares favored by investors and the stock quickly traded. A high stock trading volume can lower the cost of ownership of shares that resulting in lower spreads. It also led to lower costs processing and information costs incurred by the dealer so the dealer do not have the huge costs that make the dealer can sell their shares cheaper. Thus the more active trading of a share or more large trading volume of a stock, the lower the cost of stock which means that the bid ask spread will be smaller. The results of Shobriati et al (2013), Paramitha and Yulianto (2014) showed that trading volume activities partially significantly influence bid ask spread.

Sahalia and Yu (2009) stated stock return variance representing risks faced by the dealer on the ownership of a stock. Stock return variance showed a return variability around the normal stock returns due to their volatility (fluctuations in stock prices). The higher stock return variance daily shows the variation of the stock returns received by investors. This reflects high market uncertainty. High stock return variance means the risk that faced is also high. A high stock risk is making dealers hold these shares until a certain time so that the cost of ownership increased causing the spread wider. Longer stock ownership affect the cost of ownership, processing fees and cost information. This causes the dealer to offer shares possession with higher prices, thus making the shifting ask prices and widen the spread. So higher stock return variance can led to the widening of spreads. The results of Santoso and Linawati (2014), Fitriyah (2012) showed that stock return variant significantly influences bid ask spread.

ICONIET 2018

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This research object are shares in the Kompas 100 Index. Kompas 100 Index is a stock index of 100 shares of publicly listed companies traded on the Indonesia Stock Exchange. It was officially issued by the Indonesia Stock Exchange (IDX) in cooperation with Kompas newspaper on Friday, August 10, 2007. The shares selected to be included in Kompas 100 Index are in addition to having high liquidity, as well as a large market capitalization value, stocks that have fundamental and good performance. Kompas 100 index in IDX is updated every six months.

2. Research Model

Causal study is a study in which the researcher wants to delineate the cause of one or more problems.

Below is the figure for this research:
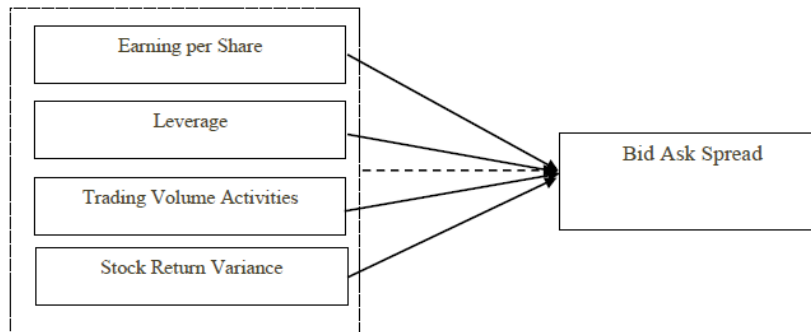
Source : Author

From the figure above, it can be seen that regression model of this research is:

$$BIDASK_{it} = \alpha + \beta_1 EPS + \beta_2 LEVERAGE + \beta_3 TVA + \beta_4 RETURNVAR + e$$

Description :

$BIDASK_{it}$	= Bid Ask Spread
α	= Constants
$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$	= Coefficient
EPS	= Earning per Share
LEVERAGE	= Leverage
TVA	= Trading Volume Activities
RETURNVAR	= Stock Return Variance
e	= Standard Error

3. Research Variable

4.1 Dependent Variable

The dependent variable in this study is bid ask spread, measured using a ratio scale. The concept of bid ask spread is to make the stock average observed during the observation period. The formula used is as follows (Atkins and Dyl, 1997):

$$Spread_{it} = \left[\sum_{t=1}^{N} \frac{ASK_t - BID_t}{(ASK_t + BID_t)/2} \right] / N$$

Description:

$Spread_{it}$	: Average bid-ask spread of company stock i during T
N	: Number of stock transactions of company i during T
Ask_{it}	: Average ask causing investor to agree to sell company stock i in period T

ICONIET 2018

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Bid$_{it}$: Average bid causing investor agrees to buy the stock of company i in period T

4.2 Independent Variable

Independent variable is one that influences the dependent variable in either a positive or negative way.

4.2.1 Earning Per Share

The formula used is as follows (Weygandt, Kimmel, Kieso, 2013):

$$EPS = \frac{Net\ income - preferred\ dividends}{Average\ Number\ of\ common\ share\ Outstanding}$$

4.2.2 Leverage

Leverage ratio measurement is proxied with Debt to Equity Ratio (DER). The formula used to calculate the DER (Subramanyam and Wild, 2014):

$$Debt\ to\ Equity\ Ratio = \frac{Total\ Debt}{Total\ Equity}$$

4.2.3 Trading Volume Activities

Calculation of Trading Volume Activities in this study in accordance with Zulhawati (2000):

$$TVA_{i,t} = \frac{Number\ of\ shares\ of\ firm\ i\ trading\ in\ time\ t}{Number\ of\ shares\ of\ firm\ i\ outstanding\ in\ time\ t}$$

4.2.4 Stock Return Variance

The formula used is as follows (Jones, 2013):

$$Varian\ return = \sqrt{\frac{\sum_{i=1}^{n}[X_i - \overline{X}]^2}{N-1}}$$

Description:
Varian Return : Variance of stock i
X$_I$: Return of stock i
X : Average stock return i
N :Number of observations

4. Hypothesis

Sekaran and Bougie (2013) stated that hypothesis can be defined as a tentative yet testable, statement, which predicts what to expect to find in empirical data. Research hypothesis were formed based on research purpose. Therefore the research hypothesis are as follows:

Hypothesis 1

H$_O$: Earning per share has no influence toward bid ask spread.

ICONIET 2018

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H_1 : Earning per share has negative influence toward bid ask spread.

Hypothesis 2

H_O : Leverage has no influence toward bid ask spread.

H_1 : Leverage has positive influence toward bid ask spread.

Hypothesis 3

H_O : Trading volume activities has no influence toward bid ask spread.

H_1 : Trading volume activities has negative influence toward bid ask

     spread.

Hypothesis 4

H_O : Stock return variance has no influence toward bid ask spread.

H_1 : Stock return variance has positive influence toward bid ask spread.

Hypothesis 5

H_O : Earning per share, leverage, trading volume activities and stock return
variance have no influence toward bid ask spread.

H_1 : Earning per share, leverage, trading volume activities and stock return
variance have significant influence toward bid ask spread.

5. Data Analysis

All data are collected and processed with Microsoft Excel 2010 and Eviews 10 for Windows. This study uses types of data analysis, which are:

5.1 Descriptive statistics

Descriptive statistics give descriptions or descriptions of data viewed from mean, standard deviation, maximum, minimum and range (Ghozali, 2012).

5.2 Regression Analysis with Panel Data

In this research, the method used is panel data regression analysis model. Panel data is a combination of time series and cross section. Time series data is data collected from time to time against an individual. While cross section data is data collected in one time against many individuals. The three approach models in panel data analysis can be explained as follows (Widarjono, 2013):

1. Common Effect Model
2. Fixed Effect Model
3. Random Effect Model

5.3 Selection of Panel Data Regression Model

1. Chow Test

   If the test result of this specification shows chi-square probability more than 0.05 then the selected model is common effect. Conversely, if the probability of Chi-square is less than 0.05

then the model that should be used is fixed effect. When the model selected is a fixed effect it is necessary to test again, namely Hausman test to determine whether it should use fixed effect model (FEM) or random effect model (REM).

2. Hausman Test

   If hypothesis 0 is rejected then the conclusion should be used FEM. Because REM is likely to be correlated with one or more independent variables. Conversely, if Ha is rejected, then the model that should be used is REM.

3. Lagrange Multiplier Test

   To find out whether the Random Effect model is better than the Common Effect (OLS) method, the Lagrange Multiplier (LM) test is used. This Random Effect significance test was developed by Breusch Pagan. The Pagan Bruesch method for testing the significance of Random Effects is based on the residual value of the Common Effect method.

5.4 Coefficient of Determination Test

According to Ghozali (2012), this test aims to measure how far the ability of the model in explaining the variation of the dependent variable. The coefficient of determination is between zero and one. The small value of R^2 means the ability of the independent variables to explain the variation of the dependent variable is very limited.

8.5 Simultaneous Significance Test (Test Statistic F)

The F statistic test measures the goodness of fit that is the accuracy of the sample regression function in estimating the actual value. If the significance value of F (p-value) <0.05, then the regression model can be used to predict the dependent variable.

8.6 Individual Parameter Significance Test (Test Statistic t)

The statistical test t basically indicates how far the influence of one individual explanatory / independent variable in explaining the variation of the dependent variable. Test t has significance value α = 5%. The criterion of hypothesis testing by using statistical test t is if the significance value t (p-value) <0.05, then the alternative hypothesis accepted, which states that an independent variable individually and significantly affect the dependent variable (Ghozali, 2012).

6. Research Object

The object of this research is taken using purposive sampling that is based on a criteria that has been defined in Kompas100 index that is listed in the Indonesia Stock Exchange for the period 2015-2016. The details for the sample that is taken for this research is:

Criteria	Number of Company
Companies included in the Kompas 100 Index.	100 Companies
Companies included in the Kompas 100 Index consecutively in the period 2015-2016.	74 Companies
Have a complete daily bid and offer price.	55 Companies
Issuing financial statements in Rupiah currency that have been audited by independent auditors in the period 2015-2016.	54 Companies
Companies taken as sample for this research	54 Companies

10. Data Analysis

10.1 Descriptive statistics

Descriptive statistics give descriptions or descriptions of data viewed from mean, standard deviation, maximum, minimum and range (Ghozali, 2012).

	BIDASK	EPS	LEVERAGE	TVA	RETURNVAR
Mean	0.0000220	310.3634000	2.1447460	0.0017790	0.0011930
Median	0.0000205	102.1488000	1.0227240	0.0011850	0.0010960
Maximum	0.0000535	3,470.2590000	13.5432300	0.0117460	0.0099710
Minimum	0.0000085	(241.0778000)	0.0761250	0.0000888	0.0004510
Std. Dev.	0.0000082	540.1363000	2.7428030	0.0017970	0.0008840
Observations	108	108	108	108	108

10.2 Regression Analysis with Panel Data

1. Estimation Results with Common Effect Model

```
Dependent Variable: BIDASK
Method: Panel Least Squares
Date: 02/10/18   Time: 10:58
Sample: 2015 2016
Periods included: 2
Cross-sections included: 54
Total panel (balanced) observations: 108
```

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EPS	-7.01E-09	1.31E-09	-5.351776	0.0000
LEVERAGE	3.11E-09	2.56E-07	0.012158	0.9903
TVA	-0.001065	0.000394	-2.705743	0.0080
RETURNVAR	-0.000734	0.000797	-0.920803	0.3593
C	2.70E-05	1.56E-06	17.28069	0.0000

R-squared	0.244954	Mean dependent var	2.20E-05
Adjusted R-squared	0.215632	S.D. dependent var	8.17E-06
S.E. of regression	7.24E-06	Akaike info criterion	-20.79007
Sum squared resid	5.39E-09	Schwarz criterion	-20.66590
Log likelihood	1127.664	Hannan-Quinn criter.	-20.73972
F-statistic	8.353884	Durbin-Watson stat	0.519010
Prob(F-statistic)	0.000007		

2. Estimation Results with Fixed Effect Model

```
Dependent Variable: BIDASK
Method: Panel Least Squares
Date: 02/10/18   Time: 11:08
Sample: 2015 2016
Periods included: 2
Cross-sections included: 54
Total panel (balanced) observations: 108
```

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EPS	-4.56E-09	4.53E-09	-1.005958	0.3193
LEVERAGE	9.01E-07	1.59E-06	0.564876	0.5747
TVA	-0.000349	0.000521	-0.669411	0.5063
RETURNVAR	0.000549	0.000590	0.930531	0.3566
C	2.15E-05	4.34E-06	4.948029	0.0000

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.912169	Mean dependent var	2.20E-05
Adjusted R-squared	0.812041	S.D. dependent var	8.17E-06
S.E. of regression	3.54E-06	Akaike info criterion	-21.95995
Sum squared resid	6.27E-10	Schwarz criterion	-20.51955
Log likelihood	1243.837	Hannan-Quinn criter.	-21.37592
F-statistic	9.110064	Durbin-Watson stat	3.927273
Prob(F-statistic)	0.000000		

3. Estimation Results with Random Effect Model

ICONIET 2018

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```
Dependent Variable: BIDASK
Method: Panel EGLS (Cross-section random effects)
Date: 02/10/18  Time: 11:09
Sample: 2015 2016
Periods included: 2
Cross-sections included: 54
Total panel (balanced) observations: 108
Swamy and Arora estimator of component variances
```

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EPS	-6.56E-09	1.64E-09	-3.999422	0.0001
LEVERAGE	4.15E-08	3.36E-07	0.123393	0.9020
TVA	-0.000740	0.000383	-1.931492	0.0562
RETURNVAR	0.000150	0.000523	0.286835	0.7748
C	2.51E-05	1.63E-06	15.42084	0.0000

Effects Specification			
		S.D.	Rho
Cross-section random		6.40E-06	0.7654
Idiosyncratic random		3.54E-06	0.2346

Weighted Statistics			
R-squared	0.153956	Mean dependent var	8.03E-06
Adjusted R-squared	0.121100	S.D. dependent var	3.77E-06
S.E. of regression	3.54E-06	Sum squared resid	1.29E-09
F-statistic	4.685787	Durbin-Watson stat	1.959198
Prob(F-statistic)	0.001627		

Unweighted Statistics			
R-squared	0.229698	Mean dependent var	2.20E-05
Sum squared resid	5.50E-09	Durbin-Watson stat	0.458918

10.3 Selection of Panel Data Regression Model

1. Chow Test

```
Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects
```

Effects Test	Statistic	d.f.	Prob.
Cross-section F	7.166562	(53,50)	0.0000
Cross-section Chi-square	232.347050	53	0.0000

It shows that the F test is significant (p-value) 0.0000 so it is smaller than 0.05 so Ho is rejected (H_1 accepted). Then the Fixed Effect model is better than the PLS / Common Effect model.

2. Hausman Test

```
Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects
```

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.716079	4	0.4458

This Hausman test follows the Chi Square distribution with Degree of Freedom by (k), where (k) is the number of independent variables. It shows that the F test is significant (p-value) 0.4458 so it is bigger than 0.05 so Ho is accepted (H_1 rejected). Then the Random Effect model is better than Fixed Effect model.

3. Lagrange Multiplier Test

```
Lagrange multiplier (LM) test for panel data
Date: 02/07/18   Time: 00:02
Sample: 2015 2016
Total panel observations: 108
Probability in ()
```

Null (no rand. effect) Alternative	Cross-section One-sided	Period One-sided	Both
Breusch-Pagan	27.87404 (0.0000)	50.04005 (0.0000)	77.91409 (0.0000)
Honda	5.279587 (0.0000)	7.073899 (0.0000)	8.735234 (0.0000)
King-Wu	5.279587 (0.0000)	7.073899 (0.0000)	7.726555 (0.0000)
GHM	-- --	-- --	77.91409 (0.0000)

The value of P Value is shown by the number below which is 0.0000 where the value is less than 0.05. So the Lagrange Multiplier Test indicates that receiving H_1 means the best estimation method is Random Effect.

Variable		COMMON	FIXED	RANDOM (SELECTED)
EPS	Coefficient	-7.01E-09	-4.56E-09	-6.56E-09
	Prob	0.0000	0.3193	0.0001**
LEVERAGE	Coefficient	3.11E-09	9.01E-07	4.15E-08
	Prob	0.9903	0.5747	0.9020
TVA	Coefficient	-0.001065	-0.000349	-0.00074
	Prob	0.0080	0.5063	0.0562***
RETURNVAR	Coefficient	-0.0007	0.000549	0.00015
	Prob	0.3593	0.3566	0.7748

** Significance level 5%
*** Significance level 10%

Summary of Test Results

The regression model of this research is:

$$BIDASK_{it} = -6.56E\text{-}09EPS + 4.15E\text{-}08LEVERAGE - 0.00074TVA + 0.00015RETURNVAR$$

10.4 Coefficient of Determination Test

Weighted Statistics			
R-squared	0.153956	Mean dependent var	8.03E-06
Adjusted R-squared	0.121100	S.D. dependent var	3.77E-06
S.E. of regression	3.54E-06	Sum squared resid	1.29E-09
F-statistic	4.685787	Durbin-Watson stat	1.959198
Prob(F-statistic)	0.001627		

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Based on the results of testing with the Random Effect Model, the value of adjusted R^2 is 0.121100. This means that only 12.11% of the Bid Ask Spread variations can be explained by the variation of the four independent variables: earning per share, leverage, trading volume activities and stock return variance. While the rest of 87.89% is explained by other variables not described in this study that allegedly significant and can affect the Bid Ask Spread.

10.5 Simultaneous Significance Test (Test Statistic F)

Based on the calculation of F-test on Random Effect model estimation results obtained the F-hit result is 4.685787 with a significance value (prob.) Of 0.001627. Due to the significance value <0.05, with 95% confidence level then H_0 is rejected. It can be concluded that there is a significant simultaneous influence between earning per share, leverage, trading volume activities and stock return variance toward bid ask spread.

10.6 Individual Parameter Significance Test (Test Statistic t)

Dependent Variable: BIDASK
Method: Panel EGLS (Cross-section random effects)
Date: 02/07/18   Time: 00:16
Sample: 2015 2016
Periods included: 2
Cross-sections included: 54
Total panel (balanced) observations: 108
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.51E-05	1.63E-06	15.42084	0.0000
EPS	-6.56E-09	1.64E-09	-3.999422	0.0001
LEVERAGE	4.15E-08	3.36E-07	0.123393	0.9020
TVA	-0.000740	0.000383	-1.931492	0.0562
VARIANCE	0.000150	0.000523	0.286835	0.7748

Hypothesis 1 Testing: Influence of Earning Per Share toward Bid Ask Spread

Based on the result of the research using Random Effect Model known for the Earning Per Share variable in t-statistic test shows negative correlation with the value of probability is 0.0001 where this value is <0.05. Based on the 95% confidence level, it can be deduced that H_0 is rejected. Thus the earning per share has negative influence toward bid ask spread. In general, the coefficient mark is as expected. High earning indicates that the shares of the company has good prospects, this encourages investor to make bigger investment so these shares are actively traded. If a stock is actively traded, then the dealer will not keep these shares for long time. This will result in reduced cost of ownership of shares, processing fees orders and cost information which in turn decreases the level of bid ask spread.

Hypothesis 2 Testing: Influence of Leverage toward Bid Ask Spread

Based on the result of the research using Random Effect Model known for the Leverage variable in t-statistic test shows positive correlation with the value of probability is 0.9020 where this

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value is >0.05. Based on the 95% confidence level, it can be deduced that H_0 is accepted. Thus the leverage has no influence toward bid ask spread. In general, the coefficient mark is as expected. Leverage is not having influence because although companies listed in Kompas 100 index with high leverage rates are considered more risky, but because the leverage of the company is not too fluctuating, so it does not affect the decision of the investor in buying / selling shares.

Hypothesis 3 Testing: Influence of Trading Volume Activities toward Bid Ask Spread

Based on the result of the research using Random Effect Model known for the Trading Volume Activities variable in t-statistic test shows negative correlation with the value of probability is 0.0562 where this value is <0.1. Based on the 90% confidence level, it can be deduced that H_0 is rejected. Thus the Trading Volume Activities has negative influence toward bid ask spread. In general, the coefficient mark is as expected. Large trading volumes indicate that the stock is actively traded, which indicates that stocks are favored by investors and their shares are quickly traded. High stock trading volume can lower share ownership costs resulting in lower spreads. This also causes the processing costs and lower cost charges incurred by the dealer so that the dealers do not have the big costs that make dealers can sell their shares cheaper. Thus the more active trading of stocks or greater trading volume of a stock, the lower the stock cost which means that the bid ask spread will be smaller.

Hypothesis 4 Testing: Influence of Stock Return Variance toward Bid Ask Spread

Based on the result of the research using Random Effect Model known for the Stock Return Variance variable in t-statistic test shows positive correlation with the value of probability is 0.7748 where this value is >0.05. Based on the 95% confidence level, it can be deduced that H_0 is accepted. Thus the Stock Return Variance has no influence toward bid ask spread. In general, the coefficient mark is as expected. Stock Return Variance is not having influence due to variations in the return of stocks' rate that are not too large during the study period. Although in general stocks with high returns are preferred by investors, but investors tend to pay attention to capital gains that will be obtained.

11. Conclusion

From this research it can be concluded that:

1. Hypothesis 1 accepted, earning per share has negative influence toward bid ask spread.
2. Hypothesis 2 rejected, leverage has no influence toward bid ask spread.
3. Hypothesis 3 accepted, trading volume activities has negative influence toward bid ask spread.
4. Hypothesis 4 rejected, stock return variance has no influence toward bid ask spread.
5. Hypothesis 5 accepted, earning per share, leverage, trading volume activities and stock return variance is found to simultaneously have influence toward bid ask spread.

5.2 Recommendation

The object used in this study is a company listed on the Kompas 100 index, so the results cannot be generalized to other sectors, in subsequent research is recommended to use all companies listed in Indonesia stock exchange. Adjusted R square is 0.1211. This shows that earnings per share, leverage, trading activity volume and stock return variance can explain bid ask spread variable of 12.11%, the remaining 87.89% is explained by other variables that are not in this research. In subsequent research is recommended to add another variable that can influence the width of bid ask spread, like stock price, dividend and number of stock trading day.

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